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Report enclosed:

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Project Title:	Creation of Pomology Weather Services on the World Wide Web
Project Leader:	Louise Ferguson
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Creation of Pomology Weather Services on the World Wide Web

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Summary:

The objective of this project was to develop a web site on the World Wide Web (WWW) that would give real time daily chill hour accumulation from all the California Irrigation Management Information Systems (CIMIS) stations. A secondary objective was to give the historical chill accumulation for the same location for the past five years. With this information a grower can assess whether sufficient chill hours have accumulated to date and compare this to the same date for the previous five years. It can also be used to determine if a proposed orchard site has sufficient chill hour accumulation for successful potential or current production.

Results:

A simple interface with the WWW was set up to download hourly temperatures from the 76 CIMIS weather stations in California. This system is operational during the time chill accumulation is monitored, November first through March first. Historical data from the past five years (1993-1997) was collected for comparison with current data. The system was tested for three months and was operational as of November 1, 1998. The system also provides substitute stations for each active station if a CIMIS station is not operational.

Conclusion and Practical application:

This web site can be accessed directly at <http://fruitsandnuts.ucdavis.edu/weather/> or it can be accessed through <http://fruitsandnuts.ucdavis.edu> and then selecting Pomology Weather Services. Once in the site follow instructions for selecting specific CIMIS stations. State sectional maps are provided to show the station location within a county. Once a station is selected a time period can be specified. Once the current chill hour accumulation is obtained it can be compared to the previous five years chill hour accumulation for the same time period. This information can then be used, particularly after February 15th, to determine if dormancy enhancing oil applications should be applied to ensure a more uniform and effective bloom. This information can also be used to determine if a location has sufficient chill hour accumulation for nut production.

Hopefully this site will be expanded to include chill units. Chill units are considered more useful than chill hours as chill units are accumulated chill hours corrected for temperatures that are too cold and too warm and thus do not contribute to successful blossom.